£40k Innovation Event – 'Our Digital Imaging Futures' - Technology Accelerator Chiasma (TAC)

Dates: Day 1: Friday 16th January 2015 9am - 9pm

Day 2: Friday 30th January 2015 9am – 8pm (Funding awarded on second day)

Location: Double Tree Hilton, Kingsway W, Dundee, Dundee City DD2 5JT

Cost: 2 days committed engagement (food provided and accommodation (if required))

Closing date for applications: Mon 15th December 2014 5pm

Digital imaging has a huge impact on many aspects of our society, from early disease detection to forensic identification, disaster recovery to climate change visualisation. Whilst still a relatively young field, we have seen dramatic advances and innovations, including 4D imaging, laser scanning, and markerless motion systems, as well as software algorithms and systems for image processing, recognition, analysis and visualisation. There are potentially significant global markets that are predicted to rise, for instance in medical imaging alone there is a predicted rise to $35.5bn by 2019 from 2013 of $24bn [1]. Digital imaging is critically positioned at the forefront of research across many sectors and it has the capacity to fundamentally help the human race.

Design can play a pivotal role in capitalising and facilitating innovation, as well as taking ideas and realising their commercial potential. 'Our Digital Imaging Futures' TAC will bring world-renowned scientists and designers from the University of Dundee together with businesses, industry and user-led organisations (ULO's) in order to capitalise on our collective assets (e.g. knowledge, patents, networks, reputation). With Dundee recently being named as one of the UNESCO 'Cities of Design' around the world what better time to examine the impact Design can have on research emanating from the University of Dundee.

Digital Imaging has been identified as an enabling technology and whilst being highly diverse it has a range of discrete sub-sectors and many applications (for a wide spectrum of very diverse, existing and future applications). Here are a few key areas that have been identified as particularly critical and timely at this junction:

1) Making visualisation technology small, smart and portable more cost efficient, and open enough to enable widespread adoption the world over. As costs continue to decline we can consider the small size and low power requirements of new technologies e.g. miniaturisation of robots, labs and sensors. These can offer possibilities for moving many automated, diagnostic or analytical activities out of fixed, centralised, facilities and provide real-time information to, for example, health staff at surgeries, civil engineers, and climate scientists, people in urban environments and across remote locations.

2) Digital Imaging for decision-making and action and communication in contexts that have critical consequences. By intelligently filtering the ever-increasing volumes of data, which might include pattern recognition, data mining, machine learning – can we improve prediction techniques? Can new image and video

analysis algorithms and tools unlock image rich source of data? Might we understand and provide simpler, accurate, and more accessible images or communicate complex relationships and provide reliable, consistent measurements? Could we usefully incorporate 'poor or incomplete', 'unreliable', and 'uncertain' data?

3) Connected Intelligence and Intelligent interfaces where digital imaging moves beyond the screen - i.e. remote sensing, noninvasive and automatic monitoring and real-time insights, wearable technology for embedded and personalized care for people. Enhancing reliability, flexibility, and usability. There are benefits for people and business. People become better informed and equipped to influence the ways they experience or plan and business has real-time connections to the physical world that allows faster and more intelligent responses.

Who Should Apply?

You should apply to attend TAC if you want to do one or more of the following:

- Meet innovative people from Academic, Design and Industry
- Create a new product or service, or innovate an existing one
- Work with the University of Dundee researchers on collaborative projects

Academics at University of Dundee with specialist knowledge and/or applications for digital imaging. Business (Commercial and Industry partners, Manufacturing, Sciences, Design, consultants) Organisation's (Charities, User-Led Organisation's, NGO's, Civil Service). We invite applications from Academics from University of Dundee in areas of science which have strong a digital imaging focus e.g. medicine, genetics and omics, biomedical imaging, biotechnology and biometrics, forensic science and identification, 2D-4D imaging, environmental, agriculture and geotech, civil engineering, computing science, HCI and mathematics (big data, statistics and modeling), psychology, orthopaedics and dentistry.

In addition we invite leading researchers and businesses in design with interests in interaction, animation and visualisation, mobile and physical computing, games theory, wearable's, and sound. We require expertise in user-led experiences, processes and methods, agile development, prototyping (low-fi and state of the art), design, ethnography and social science methods.

We welcome applications from businesses with manufacturing, technology expertise in line with the above, and organisation's who have user-led challenge or problem areas that require new approaches using digital imaging.

Benefits of applying

TAC is new strand of the Design in Action programme of residential innovation events. Design in Action Chiasma meaning ideas at the point of creation, places the role of design at the forefront of the exchange of knowledge. By collaborating across disciplines and sectors, we can action radically different use cases and applications for commercial market situations.

The Technology Accelerator Chiamsa TAC is the first of an ambitious programme that seeks to address the challenges of realising the full potential of University IP by bringing agility and design techniques to new applied contexts and world challenges.

Accepted participants will be facilitated over the course of 2 days, and will form teams to prototype ideas arising from the Chiasma process into viable ideas for business or 'in the wild' research. Invited experts will be on hand to advise on specific innovation aspects e.g. IP, digital platforms, economies and systems that are enabling new forms of service and models for business.

The participant teams, which must incorporate a designer, will have the opportunity to pitch to an expert panel at the close of day two. The winning team(s) will have access for up to £40,000 to take their idea forward; the winning ideas will be announced on the day.

Please see FAQ's for further information.

 [1] Transparency Market Research report on line highlighted the world wide market size for medical imaging equipment alone is predicted to rise to $35.5bn by 2019 based on an AGR OF 5.4% from its positon in 2013 of $24bn.

CHIASMA - Chiasma generates new ideas that will help individuals to manage themselves as they age. Chiasma enables team formation, helps with developing a "pitch" and builds ideas towards a presentation to an expert panel that will provide vital feedback. The University of Dundee will temporarily hold the new IP resulting from this Chiasma, which will be then be licensed, assigned or spun-out for commercialisation. The total grant funding available is £40,000 which will allow one or more teams to build a working prototype. These prototypes will be transformative in their approach, helping to resolve some of the most difficult issues society are facing.

The Chiasma is an introduction to working with design and designers, each team will have a designer at its core, supporting the development of ideas, Chiasma also offers a great networking and builds a knowledge of current issues within the ICT sector.

Chiasma: Ideas at the Point of Creation

Participants will be expected to break down barriers and build up thoughts on how the identified challenges can be addressed. You will be encouraged to experiment and explore genuinely innovative ideas.

This is an intensive, immersive process, which has been purposefully constructed to allow open, radical thinking through group interaction using a process that facilitates first principle idea generation. Chiasma events are held in environments away from everyday concerns to bring into being innovative ideas with the potential and perspectives.

The Chiasma will be introduced by the Design in Action team, who will establish the ethos of the event. Facilitators will support participants throughout and experts in relevant fields will assist and challenge positions and perspectives.

The process can be broken down into several stages:

- Defining the scope of the business challenge

- Shared understanding of the issues

- Consideration of alternative practices

- Interactive sessions focused on solutions

Chiasma Participants

The right mix of participants is an essential ingredient for innovation. Applications are encouraged from the following individuals / collectives: businesses, academia, designers, users, organisations, charities, and professionals in the field. You must be willing to share ideas, speculate on future developments and collaborate to address the issues and challenges facing businesses in this field.

How to Apply

The deadline for applications is 4pm, Mon 15th December 2014. If selected as a participant, some of your details in the Application Form will be made available to other participants to facilitate networking prior to and during the event.

Assessing Applications

Applications will be peer-reviewed by a selection committee in order to ensure a mix of disciplines and experience. It is likely that those selected will meet the following criteria: -

- Proven team-working skills

- Basic understanding of the technology and or the financial services sectors

- Being able to demonstrate they are actively looking for new project opportunities and collaborations

N.B. Please note that due to the number of applications expected, it is unlikely we would be able to give individual feedback to unsuccessful applicants.

After Chiasma

All of the ideas that DiA provide grant funding to may be assigned a researcher who will observe the commercialisation process and outcomes. Case studies may evolve from this process and be used by the research team to educate and explain the design process in a business context. All participants will be expected to read and agree to the below Terms of Engagement in order to attend the Chiasma.

Design in Action: Terms of Engagement

1. Workshop Support

1.1 Subsistence

There will be no fee to attend Chiasma. Upon acceptance of the offer of a place, Design in Action will provide participants with all meals and accommodation at the workshop venue, if required. Design in Action will not be liable for any further incidental expenses.

1.2 Travel Expenses

Expense claim forms will be available at the workshop. Design in Action will reimburse reasonable receipted travel expenses submitted no more than 2 weeks after the Chiasma event. We would prefer participants to travel by public transport however, if it is more convenient to travel in your own car, mileage will be reimbursed. If you choose to travel in your own car, you must have appropriate insurance in place and Design in Action will not be liable for any additional costs other than mileage. Travel expenses should be posted/emailed to the Design in Action team (contact details below).

1.3 Design Support Grants

Participants from Scottish Micro-Enterprises in the Creative Industries i.e. businesses with fewer than 10 employees and whose annual turnover does not exceed the equivalent of two million Euros, may be eligible for a Support Grant to a maximum of £250 per full day to attend the Design in Action Chiasma. There may also be grant funding available for up to 2 days in between each Chiasma for further idea development and refinement. Grant application forms will be included in all participant Welcome Packs and, if you believe you are eligible, you should return completed forms with your signed Terms of Engagement. Please note you will only be funded after having fully partaken over the entirety of the Chiasma process. Partial attendance will not be reimbursed.

1.4 Attendance

Hosting the innovation workshops is a resource-intensive undertaking. To prevent the waste of resources, we would be grateful if upon accepting a place participants will attend. If extenuating circumstances arise, please inform our team (enquiries@designinaction.com) at the earliest possible opportunity to allow the place to be offered to another applicant. Participants who do not attend the workshop or inform Design in Action within 7 days may become liable for the expense of their place.

1.5 Conduct

Design in Action is bringing together a diverse range of professionals from a number of different fields. We want every participant to be able to express themselves fully during the event however if at any point during the event a participant is deemed to be problematic within the Chiasma process the Design in Action team reserve the right to exclude the participant from the remainder of the event.

2. Research

Design in Action has a strong research focus and is committed to developing understanding of the knowledge exchange process in the design field. As such, data will be collected during Chiasma and the collection and use of this data will adhere to the highest ethical standards.

Grant-supported partnerships may be assigned a researcher who will observe the prototyping process and outcomes. Case studies may evolve from this process and be used by the research team to educate and explain the design process in a business context.

2.1 Data Collection

Researchers will document their observations during the workshop. Video-recordings may be used to support these observations. Participants who do not wish to be filmed will have the opportunity to indicate this at registration. Participants may be asked to participate in interviews. Participation in an interview is entirely voluntary and at the participant's discretion. Interviews will be tape recorded and transcribed by the respective researcher. Participants have the option to pass on any questions they do not want to answer. A copy of their interview transcript will be provided, free of charge, on request.

2.2 Research Ethics Policy

By accepting these 'Terms of Engagement' participants give permission that the data collected can be used for research-specific purposes. Signing this form, however, does not commit the participants to anything they do not wish to do and they are free to withdraw from Chiasma up to 7 days prior to the event. Material gathered during Chiasma will be treated with the participants' rights to privacy, anonymity and confidentiality in mind and handled only by staff involved in the project. In order to ensure confidentiality in the writing up and publication of the empirical work, anonymity will be preserved. If it is essential to give a sense of context to the script, participants will be given a pseudonym and any details will be obscured for use in verbal and written records and reports.

Data will be kept safe from unauthorised access, accidental loss or destruction, and kept no longer than necessary for the specified research purpose. The empirical work forms part of the Design in Action research programme and the intended outputs may include conferences and conference papers, journal articles, press releases, case studies, exposition, symposia, seminars, websites and workshops.

2.3 Confidential Information

Confidential Information within Chiasma is without limitation, information, data, drawings, plans, schemes and concepts not previously known to participants or available to participants from any other legitimate source. Participants agree that confidential information within Chiasma must not be disclosed to a third party to copy or make use of in any way without the prior and written consent of University of Dundee and/or the individual presenter/owner of the said confidential information.

3. Intellectual Property

Intellectual Property (IP) can be divided into background IP and foreground IP. Background IP is the intellectual property belonging to a participant that has been generated prior to the workshop, whilst foreground IP is the intellectual property generated during the workshop. Any background IP being introduced will be done at the discretion of the University and in the event of such, the owners of background IP (other than from the University of Dundee) will consent to make it available for use under the Technology Accelerator Chiasma under a royalty free license. Any IP that you wish to retain should not be disclosed at a Chiasma event. Design in Action is a Knowledge Exchange Hub and is committed to the advancement of the Scottish economy through innovation. Chiasma participants will be encouraged to commercialise ideas and Design in Action reserves the right to share these with other participants to ensure realisation for the benefit of the Scottish economy.

3.1 In order for the protection of all Chiasma participants and to allow for legally binding licences and other commercial agreements to be enacted and to meet the stated aims and purposes of Design in Action, ownership of all intellectual property (IP) generated during a Chiasma workshop shall be assigned to the University of Dundee.

3.2. The University of Dundee through its Research and Innovation Services (RIS) shall be responsible for the management of all IP and to the licensing/assignation thereof on behalf of Design in Action.

3.3 The intention by a participant to introduce background IP into a workshop must be declared to Design in Action at least 14 days prior to a workshop. The decision to include background IP into a workshop shall be at the discretion of Design in Action, but background IP that is not freely available for licensing and/or assigning to the University of Dundee if required for a Grant Funding Proposal and subsequent commercialisation thereof shall not be included.

3.4 Material benefits from the commercialisation of IP (including background IP) shall be restricted to those participants who are part of the team whose Grant Funding Proposal is accepted for a prototyping phase and who are subsequently granted a licence to or given ownership (assignation) of the IP, in order to commercialise it. No other participants shall receive material benefits from the commercialisation of IP even where the IP includes their ideas and concepts and background IP.

4. Grant Funding

Post-Chiasma teams will be eligible to apply for Grand Funding of up to £20,000 for prototyping purposes. Grant Funding will support teams and facilitate the development of ideas generated during Chiasma. Grant Funding Proposal documents will be provided to participants at the Chiasma.

5. Post Grant-Funding/Commercialisation

5.1. Participants with a successful Grant Funding Proposal shall agree on a lead entity for prototyping purposes. Once the prototyping (with DiA research embedded) phase has been completed and if the project is in a position to be commercialised the lead entity shall then be formally licensed/assigned by the University of Dundee to exploit the relevant IP. The University of Dundee shall provide a standard IP licence/assignation agreement for this purpose. The licence agreement/assignation agreement provided by the University of Dundee will impose certain obligations on the successful participants and be predicated on the creditable Grant Funding Proposal. Other requirements such as performance criteria, reporting provisions and fair and reasonable benefit terms to successful participants shall also figure. The benefits will take the form of either an equity stake in the company or a profit sharing agreement between the lead party and the successful participants but may also take the form of benefit in kind, further collaboration, employment opportunity or service provision. In any event the University, on behalf of Design in Action, acting reasonably, shall be required to be satisfied on the terms and conditions of any form of benefit provision between the successful participants.

5.2 All IP licences/assignation agreements between the University of Dundee and the successful participants shall contain a royalty provision or equity stake. The equity or royalty (which is hereby agreed at a rate of 10 percent) shall be applied by the University of Dundee solely for the purpose of sustaining the Design in Action project.

5.3 Sub-licensing shall not be permitted without the further agreement of the University of Dundee acting reasonably. Where permitted the University of Dundee shall have the right to introduce further terms and conditions into the licence including but not restricted to a revised royalty rate.

5.4 All income received by the University of Dundee shall be placed at the disposal of Design in Action in order to provide for its long term sustainability Therefore, the University of Dundee Court Guidelines on Revenue Sharing will not apply to any revenue received by the University of Dundee from commercialisation activities arising from a Chiasma-generated idea.

5.5 Non-funded Grant Funded Proposals and IP not progressed to a Grant Funding Proposal shall be retained in the Design in Action IP Bank. Proposals for taking such IP forward shall be considered on a preferential basis. The first opportunity will go to the other participants in the workshop where the IP originated, then the other members of the Design in Action network. If no proposals are received and approved from the foregoing participants the IP will be made available to Design in Action for dissemination to a wider audience under commercial or non-commercial terms. Design in Action funding will not be available to any proposals made under this clause 5.5 but commercial terms may apply.

6. Further Information

Any queries regarding application to / participation in Chiasma should be addressed to:

University of Dundee, Level 3, Matthew Building, 13 Perth Road, Dundee, DD1 4HT

Email: enquiries@designinaction.com

Tel: 01382 385361

I hereby accept the terms of engagement within this document.

Signed…………………………………………………………………………… Dated……………………………………………

Full name and title……….

Organisation………

Address………